

Settings

This is a module to allows administrators to manage user access and control permissions within the system. Features include:

User Credentials - securely store and manage user authentication details, including usernames, passwords options.

Roles Management- Create and assign roles to users, defining their access level and responsibilities. Roles can be customized to reflect specific job functions.

Permissions Control - fine-tune access by assigning permissions to roles or individuals, ensuring users can only interact with data and features relevant to their role.

- [20.1 & 20.2 User Information Management](#)
- [20.3 Roles](#)

20.1 & 20.2 User Information Management

20.1 User Information Management

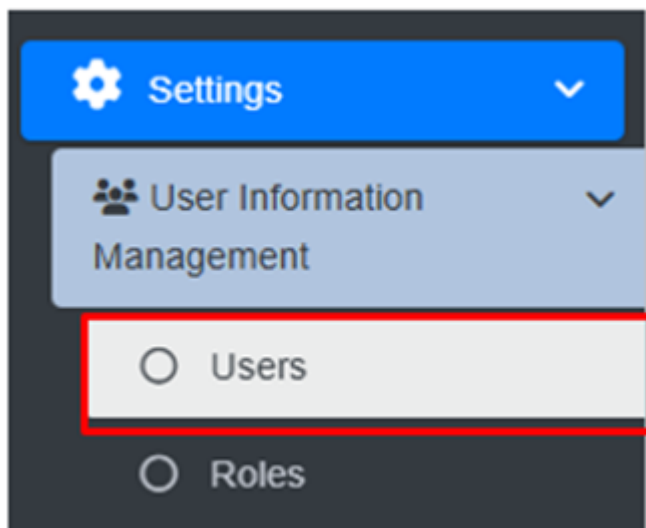
The **User Information Management** sub-module that provides information management capabilities related to user information management are grouped in this panel.

20.2 Users

The **Users** module is responsible for keeping track of system users. According to the user's defined roles, various users have access to the system at varying degrees. The municipality admin is responsible for creating and keeping up with user's data.

20.2.1 Navigation to Users

- Open the sidebar and click on the **Settings** to expand.
- Now, click on the '**User Information Management**' and select **Users**.



- This redirects to the **Users** Page.

Overview:

The user can view the lists of existing users in the system.

- User can also create new user (refer to section 20.2.2 Create User).
- Export the data (refer to chapter 8 Tools).
- For more details on the Action buttons (refer to chapter 6 Actions).

Users

Create User

Export to CSV

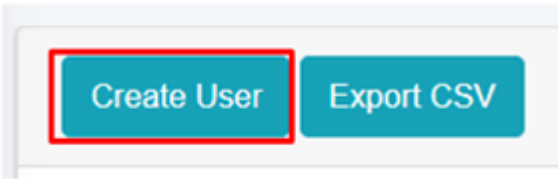
Email	Name	Role	User Type	Status	Actions
merekezed@mailinator.com	Sydnee Skinner	Service Provider - Help Desk	Help Desk	Inactive	<div></div> <div></div> <div></div> <div></div>
tameg@mailinator.com	Gillian Lucas	Service Provider - Help Desk	Help Desk	Inactive	<div></div> <div></div> <div></div> <div></div>
guest@gmail.com	Guest	Guest	Guest	Active	<div></div> <div></div> <div></div> <div></div>
public_health@gmail.com	Municipality - Public Health	Municipality - Public Health Department	Municipality	Active	<div></div> <div></div> <div></div> <div></div>
munsolid@gmail.com	Municipality - Solid Waste Management Department	Municipality - Solid Waste Management Department	Municipality	Active	<div></div> <div></div> <div></div> <div></div>
tax@gmail.com	Tax Department	Municipality - Tax Department	Municipality	Active	<div></div> <div></div> <div></div> <div></div>
water_billing@gmail.com	Water Billing Unit	Municipality - Water Billing Unit	Municipality	Active	<div></div> <div></div> <div></div> <div></div>
sanitation@gmail.com	Sanitation Department	Municipality - Sanitation Department	Municipality	Active	<div></div> <div></div> <div></div> <div></div>

Figure 20- 1 List of Users

20.2.2 Create User

Create user tool which allows users with permission to create a new user.

- Click on **“Create User”** button.



User will be redirected to the following page:

Create User

Full Name*	<input type="text" value="Full Name"/>
Gender*	<input type="text" value="Gender"/>
Username*	<input type="text" value="Username"/>
Email*	<input type="text" value="Email"/>
Password*	<input type="text" value="Password"/>
Confirm Password	<input type="text" value="Confirm Password"/>
User Type*	<input type="text" value="User Type"/>
Roles*	<input type="text" value="Roles"/>
Status*	<input type="text" value="Status"/>

Figure 20- 2 Create new User

- After filling out the form, click **Save** and make sure a pop-up message is displayed, refer to section 7.1 Save for more details.
- If a mandatory form field is left out or any form failed validation during the form submission a validation message box will be prompted, refer to section 7.2 Validation Message Box for more details.

Users must fill in the required fields which are mentioned below:

- Full Name - Name of the user.
- Gender - Gender of the user.
- Username - Username of the user.
- Email - Email address of the user.
- Password - Encrypted Password of the user.

- Confirm password – Retype the same password again for which user entered for password field.
- User Type - Type of user, such as "Municipality" or "Service Provider"
- Roles - The role from which the user is involved to the specific user type.
- Status – Status of the user in order to access the related roles.

User Form Submission:

The form is dynamically changed according to the User Type that is selected. The role assigned should be carefully selected to ensure the correct role and permissions are being provided to the user.

Overview:

- If a **Municipality User** is selected, the roles are limited to the Municipality Related Roles.
- If the **Treatment Plant User** is selected, the roles are limited to Treatment Plant-related roles and the corresponding treatment plant must be chosen as well.
- If the **Service Provider User** is selected, the roles are limited to Service Provider related roles and the corresponding service provider must be chosen as well.
- If a **Help Desk User** is selected, the roles are limited to Help Desk-related roles and the corresponding help desk must be chosen as well.
- Choose the appropriate predefined roles and click Save button. The newly created user record will be added at the list.

Note:

- If predefined role is not suitable, the user can add a new role as required via the role page. However, the creator must be careful while creating new role.
- When the user successfully creates a new Role by following the naming convention, the newly created "Role" will be displayed in the **Roles Field** of Create User form.

The image shows a web form for creating a user. On the left, there are two labels: 'Roles*' and 'Status*'. Below these labels are two teal buttons: 'Back to List' and 'Save'. To the right of the form is a dropdown menu titled 'Roles'. The menu contains the following options: 'Municipality - Public Health Department', 'Service Provider - Admin', 'Service Provider - Emptying Operator', 'Treatment Plant - Admin', 'Guest', and 'Municipality - Testing'. The 'Municipality - Testing' option is highlighted in blue and has a red rectangular border around it.

Roles
Municipality - Public Health Department
Service Provider - Admin
Service Provider - Emptying Operator
Treatment Plant - Admin
Guest
Municipality - Testing

Figure 20- 3 The New Role is displayed in the User Create form

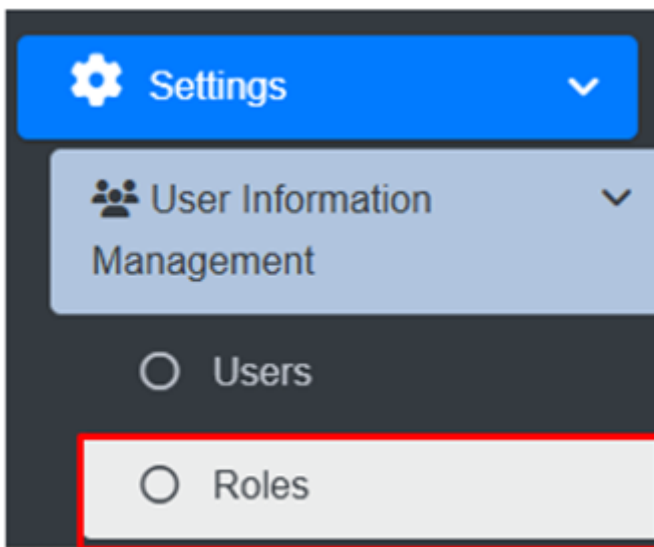
- If the user is associated to any data record, then the deletion is not allowed. If the removal is necessary , it is recommended to change the status to Active/ Operational to Inactive/ Non-operational.

20.3 Roles

The **Roles** module is responsible for managing user permissions for different modules and sub-modules, as well as defining the level of access for each role. According to the established structure, different responsibilities have access to the system at varying degrees. The administrator can specify the permissions and authority depending on a certain role on this page. For instance, a predefined role designed for service providers has been set up so that any person assigned to that job will have access to the necessary features and tools for managing service delivery effectively. The roles can be sorted by the associated categories.

20.3.1 Navigation to Roles

- Open the sidebar and click on the **Settings** to expand.
- Now, click on the **User Information Management** and select **Roles**.



This redirects to the **Roles** page

Overview:

User can view the list of existing roles in the system.

- User can create a new role (refer to section 20.3.2 Create Role).
- User can Edit the role (refer to section 6.1 Edit Record) and Delete the role (refer to section 6.3 Delete Record).

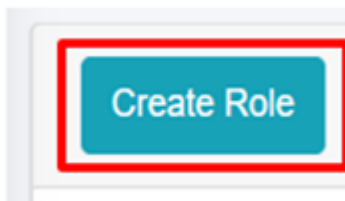
Roles	
Create Role	
Name	Actions
Municipality - Super Admin	Edit Delete
Municipality - Executive	Edit Delete
Municipality - Building Permit Department	Edit Delete
Municipality - Building Surveyor	Edit Delete
Municipality - Infrastructure Department	Edit Delete
Municipality - Tax Department	Edit Delete
Municipality - Water Billing Unit	Edit Delete
Municipality - Solid Waste Management Department	Edit Delete

Figure 20- 4 List of Roles

20.3.2 Create Role

Create Role tool is used to add new Role. This tool is to be used when the list of predefined roles does not meet the requirements, or any new role needs to be defined.

- Click on the **“Create Role”** button.



Create Role	
<div> <div>Name*</div> <div>Name</div> </div>	
<div> <div>Permissions :</div> <div>Search:</div> </div>	
<div> <div>Permission</div> <div>API</div> <div> <input type="checkbox"/> Access Emptying Service API </div> <div> <input type="checkbox"/> Access Sewer Connection API </div> <div> <input type="checkbox"/> Access Building Survey API </div> </div>	

Figure 20- 5 Create new Role

- Provide a suitable name for the new role.
- Then fill the required data, check the boxes of permissions to be provided to that role.

- There is a search field that can be used for efficient and easier navigation through the list of permissions.
- The user should always follow the **Zero Trust Policy** while assigning permissions to any particular role. The role should have only the permissions that are required by that role. No more, no less.
- Newly added Role will be added at the end of list in Role List.
- The input fields expand when the particular category is selected.
- Fill all the required data and click **Save** button.
- When the user assigns a role to the designated user, the system notifies the user with the pop-up message as:



- If the user attempts to assign a role to a user who already has the role assigned, the system notifies the user with an error message as:

Create Role

Name*

Municipality - IT Admin

!

The name has already been taken.

Figure 20- 6 Name validation for role creation

Note:

- To create a new role, the user must follow the naming convention: User Type – Role Name.
 - For example, creating a role as a municipality admin should follow this format: Municipality – IT Admin.